DNA1435-1465-1470W

IR MP Cameras

Installation and Operations Manual

Model Number: DNA1435W, DNA1465W, DNA1470W

Description: 1.3MP IP IR Camera

3MP IP IR Camera

with Vari-Focal Lens

Welcome

Thank you for purchasing our IP camera!
This user's manual is designed to be a reference tool for your system.
Please read the following safeguard and warnings carefully before you use this series product!
Please keep this user's manual well for future reference!

Important Safeguards and Warnings

1．Electrical safety

All installation and operation here should conform to your local electrical safety codes.
The power shall conform to the requirement in the SELV (Safety Extra Low Voltage) and the Limited power source is rated 12V DC or 24V AC in the IEC60950-1.
We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.
We are not liable for any problems caused by unauthorized modification or attempted repair.

2．Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3．Installation

Do not apply power to the camera before completing installation.
Please install the proper power cut-off device during the installation connection.
Always follow the instruction guide the manufacturer recommended.

4．Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.
We are not liable for any problems caused by unauthorized modifications or attempted repair.

5．Environment

This series IP camera should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.
Please keep it away from the electromagnetic radiation object and environment.
Please make sure the CCD (CMOS) component is out of the radiation of the laser beam device. Otherwise it may result in CCD (CMOS) optical component damage.
Please keep the sound ventilation.
Do not allow the water and other liquid falling into the camera.

6. Daily Maintenance

Please shut down the device and then unplug the power cable before you begin daily maintenance work.
Do not touch the CCD (CMOS) optic component. You can use the blower to clean the dust on the lens surface.
Always use the dry soft cloth to clean the device. If there is too much dust, please use the water to dilute the mild detergent first and then use it to clean the device. Finally use the dry cloth to clean the device.

Please put the dustproof cap to protect the CCD (CMOS) component when you do not use the camera.

7. Accessories

Be sure to use all the accessories recommended by manufacturer.
Before installation, please open the package and check all the components are included.
Contact your local retailer ASAP if something is broken in your package.

Accessory Name	Amount
DNA IP IR Unit	1
Quick Start Guide	1
CD	1

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1 General Introduction

1.1 Overview

This series IP camera integrates the traditional camera and network video technology. It adopts audio and video data collection, transmission together. It can connect to the network directly without any auxiliary device.

This series IPC uses standard H.264 video compression technology and G.711a audio compression technology, which maximally guarantee the audio and video quality.

It supports the IR night vision function. In the night environments, the device can use the IR light to highlight the object which is suitable for the surveillance function in the low illumination environments. The built-in protection enclosure and waterproof design conforms to the IP 66 level. It has the sound waterproof function suitable for use in the outdoor environments.

It supports real-time monitor and listening at the same time. It supports analog video output and dual-way bidirectional talk.

It can be used alone or used in a network area. When it is used lonely, you can connect it to the network and then use a network client-end. Due to its multiple functions and various uses, this series IPC is widely used in many environments such office, bank, road monitor and etc.

1.2 Features

User Management	● Different user rights for each group, one user belongs to one group. ● The user right shall not exceed the group right.
Storage Function	● Support central server backup function in accordance with your configuration and setup in alarm or schedule setting ● Support record via Web and the recorded file are storage in the client-end PC. ● Support built-in SD card. ● Do not support local SD card hot swap storage function. Support short-time storage when encounter disconnection. ● Support network storage function such as FTP.
Alarm Function	● Real-time respond to external on-off alarm input, and video detect as user pre-defined activation setup and generate corresponding message in screen and audio prompt(allow user to pre-record audio file) ● Real-time video detect: motion detect, camera masking.
Network Monitor	● IPC supports one-channel audio/video data transmit to network terminal and then decode. Delay is within 270ms (network bandwidth support needed) ● Max supports 20 connections. ● Adopt the following audio and video transmission protocol: HTTP, TCP, UDP, MULTICAST, RTP/RTCP, RTSP and etc. ● Support web access.
Network Management	● Realize IPC configuration and management via Ethernet. ● Support device management via web or client-end.
Power	● External power adapter DC12V/AC 24V. You can select according to your actual environments. Please note system can not support these two types of power supplying at the same time.
Assistant Function	● Log function ● Support system resource information and running status real-time display.

	● Day/Night mode auto switch. ● Built-in IR light. Support IR night vision. ● Support picture parameter setup such as electronic shutter and gain setup. ● Backlight compensation: screen auto split to realize backlight compensation to adjust the bright. ● Support video watermark function to avoid vicious video modification. ● The enclosure conforms to the IP 66 protection. Has the waterproof function.

1.3 Specifications

1.3.1 Performance

Please refer to the following sheet for IPC performance specification.

Model / Parameter		DNA1470W Series	DNA1435W Series
System	Main Processor	TI Davinci high performance DSP	
	OS	Embedded LINUX	
	System Resources	Support real-time network, local record, and remote operation at the same time.	
	User Interface	Remote operation interface such as WEB, DSS, PSS	
	System Status	SD card status, bit stream statistics, log, and software version.	
Video Parameter	Image Sensor	1/2.8-inch CMOS	1/3-inch CCD
	Pixel	2048(H)*1536(V)	1280(H)*960(V)
	Day/Night Mode	Support day/night mode switch and IR-CUT at the same time.	
	Auto Aperture	DC drive	
	Gain Control	Fixed/Auto	
	White Balance	Manual/Auto	
	Exposure Mode	Auto/Low noise/Low motion blur/Defend flicker /Manual PAL: It ranges from 1/3 to 1/10000 NTSC: It ranges from 1/4 to 1/10000	Manual/Auto PAL: It ranges from 1/3 to 1/100000. NTSC: It ranges from 1/4 to 1/100000
	Video Compression Standard	H264/H264B/MJPEG	
	Video Frame Rate	PAL: Main stream（2048*1536@15fps），extra stream,（704*576@15fps） Main stream（1920*1080@25fps），extra stream（704*576@25fps）	PAL: Main stream(1280*960@12.5fps), extra stream,（704*576@12.5fps)） Main stream（1280*720@25fps），extra stream（704*576@25fps）
		NTSC: Main stream（2048*1536@15fps），extra stream（704*480@15fps） Main stream（1920*1080@30fps），extra stream（704*480@30fps）	NTSC: Main stream（1280*960@12.5fps），extra stream（704*480@12.5fps） Main stream（1280*720@30fps），extra stream（704*480@30fps）
	Video Bit Rate	H264/H264B/MJPEG	

	Video Flip	Support mirror and flip function.	
	Snapshot	Max 1f/s snapshot. File extension name is JPEG.	
	Privacy Mask	Supports max 4 privacy mask zones	
	Video Setup	Support parameter setup such as bright, contrast.	
	Video Information	Channel title, time title, motion detect, camera masking.	
	Lens	8~16mm @F1.6	8~20mm@F1.6
	Lens Interface	C/CS. Lens is the default accessories	
Audio	**Audio Input**	1-channel，LINE IN	
	Audio Output	1-channel, 3.5mm JACK SPEAK OUT.	
	Bidirectional Talk Input	Reuse the first audio input channel	
	Audio Bit Rate	16kbps 16BIT	
	Audio Compression Standard	G.711a/G.711u/PCM	
Video	**Motion Detect**	396 (18*22) detection zones；sensitivity level ranges from 1 to 6 (The 6th level has the highest sensitivity) Activation event, alarm device, audio/video storage, image snapshot, log, email SMTP function and etc.	
Alarm Input		2-channel input，1-channel output	
Record and Backup	**Record Priority**	Manual>External alarm >Video detect>Schedule	
	Local Storage	Support Micro SD card hot swap	
	Storage Management	Support display local storage status	
Network	**Wire Network**	1-channel wire Ethernet port, 10/100 Base-T Ethernet	
	Network Protocol	Standard HTTP, TCP/IP, ARP, IGMP, ICMP, RTSP, RTP,UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPOE, UPNP, NTP, Bonjour, SNMP.	
	Remote Operation	Monitor, system setup, file download, log information, maintenance , upgrade and etc	
AUX Interface	**Video Output**	1-channel analog video output，BNC port, 9-pin port connection	
	Reset	9-pin port connection	
	IR light	42 LED, IR distance 20 to 30 meters. 70 LED, IR distance 30 to 50 meters.	56 LED, IR distance 30 to 50 meters.
General Parameter	**Power**	Support AC24V/DC12V power.	
	Power Consumption	For –IR2 device: 8W MAX (10W MAX when ICR switch) For –IR4 device:10W MAX (12W MAX when ICR switch)	12W MAX (14W MAX when ICR switch)
	Working Temperature	-10□~+60□	
	Working Humidify	10%~90%	
	Dimensions(mm)	288×118×101	
	Weight	2468G（Excluding box）	
	Installation	Support various installation modes（Bracket is optional）	

1.3.2 Factory Default Setup

Please refer to the following sheet for factory default setup information.

Setup		Item			Default Setup	
					DNA1470W Series	DNA1435W Series
Camera	Conditions	Brightness			50	
		Contrast			50	
		Hue			50	
		Saturation			50	
		Gain Mode			Auto	
		Gain Limit			80	
		Exposure Mode			Auto	
		Auto Iris			On	
		Scene Mode			Auto	
		Day/night Mode			Auto	
		BLC			Off	
		Mirror			Off	
		Flip			Off	
	Video	Video bit stream	Main Stream	Bit stream type	General	
				Encode mode	H.264	
				Resolution	1080P（1920*1080）	720P（1080*720）
				Frame Rate （FPS）	PAL: 25 NTSC:30	
				Bit Rate Type	CBR	
				Recommended Bit	3584-6144 Kb/S	1536-6144 Kb/S
				Bit Rate	6144	
				I Frame	50	
				Watermark	Enable	
				Watermark character	DigitalCCTV	
			Sub Stream	Enable	Enable	
				Bit stream type	General	
				Encode mode	H.264B	
				Resolution	CIF(352*288/352*240)	
				Frame Rate （FPS）	PAL: 25 NTSC:30	

Setup	Item			Default Setup	
				DNA1470W Series	DNA1435W Series
			Bit Rate Type	CBR	
			Recommended Bit	192-1024Kb/S	
			Bit Rate	1024	
			I Frame	50	
		Snapshot	Snapshot Type	General	
			Image Size	1080P（1920*1080）	720P（1280*720）
			Quality	5	
			Interval	1s	
		Video Overlay	Privacy Mask	Disable	
			Channel Title	Enable	
			Time Title	Enable	
		Path	Snapshot Path	C:\PictureDownload	
			Record Path	C:\RecordDownload	
	Audio	Main Stream	Enable	Enable	
			Encode Mode	G.711A	
		Sub Stream	Enable	Disable	
			Encode Mode	G.711A	
Network		TCP/IP	Host Name	IPC	
			Ethernet Card	Wire(Default)	
			Mode	Static	
			Mac Address	Device MAC address when it is shipped out of the factory	
			IP Version	IPV4	
			IP Address	192.168.1.108	
			Subnet Mask	255.255.255.0	
			Default Gateway	192.168.1.1	
			Preferred DNS	8.8.8.8	
			Alternate DNS	8.8.8.8	

Setup	Item		Default Setup	
			DNA1470W Series	DNA1435W Series
		Enable ARP/Ping set device IP address service	Enable	
	Connection	Max Connection	10	
		TCP Port	37777	
		UDP Port	37778	
		HTTP Port	80	
		RTSP Port	554	
		HTTPs Port	443	
	PPPoE	Enable	Disable	
		Username	N/A	
		Password	N/A	
	DDNS	Server Type	Disable，CN99 DDNS	
		Server IP	none	
		Server Port	80	
		Domain Name	none	
		User	none	
		Password	****	
		Update Period	10 minutes	
	IP Filter	Trusted sites	Disable	
	SMIT(Email)	SMTP Server	none	
		Port	25	
		Anonymity	Disable	
		User Name	anonymity	
		Password	****	
		Sender	none	

Setup	Item		Default Setup	
			DNA1470W Series	DNA1435W Series
		Authentication (Encryption mode)	N/A	
		Title (Subject)	IPC Message	
		Attachment	Enable	
		Mail Receiver	N/A	
		Send Interval	0 second	
		Email Test	Disable，interval=60 minutes	
	UPnP	Enable UPnP	Disable	
	SNMP	SNMP v1	Disable	
		SNMP v2	Disable	
		SNMP Port	161	
		Read Community	public	
		Write Community	private	
		Trap Address	N/A	
		Trap Port	162	
		SNMP v3	Disable	
	Bonjour	Enable	Enable	
		Server Name	“SN”. It depends on the device.	
	Multicast	Multicast Address	239.255.42.42	
		Port	36666	
	QoS	Real-time Monitor	0	
		Command	0	
		Wireless QoS	Enable	

Setup	Item			Default Setup	
				DNA1470W Series	DNA1435W Series
Event	Video detect	Motion Detect	Enable	Disable	
			Anti-dither	5 seconds	
			Sensitivity	3	
			Record Channel	Enable	
			Record Delay	10 seconds	
			Relay out	Enable	
			Alarm Delay	10 seconds	
			Send Email	Disable	
			Snapshot	Disable	
		Video Masking	Enable	Disable	
			Record Channel	Enable	
			Record Delay	10 seconds	
			Relay out	Enable	
			Record Delay	10 seconds	
			Send Email	Disable	
			Snapshot	Disable	
	Alarm	Alarm Activation	Enable	Disable	
			Relay in	Alarm 1	
			Anti-dither	5 seconds	
			Sensor Type	NO	
			Record Channel	Enable	
			Record Delay	10 seconds	
			Relay out	Enable	
			Alarm Delay	10 seconds	
			Send Email	Disable	
			Snapshot	Disable	
		Relay output		1	
	Abnormity	No SD Card	Enable	Disable	
			Relay out	Enable	
			Relay out Delay	10 seconds	
			Send	Disable	

Setup	Item			Default Setup	
				DNA1470W Series	DNA1435W Series
			email		
		Capacity Warning	Enable	Disable	
			Capacity Limit	10%	
			Relay out	Enable	
			Relay out Delay	10 seconds	
			Send Email	Disable	
		SD Card Error	Enable	Disable	
			Relay out	Enable	
			Relay out Delay	10 seconds	
			Send email	Disable	
		Disconnection	Enable	Disable	
			Record	Enable	
			Record Delay	10 seconds	
			Relay out	Enable	
			Relay out Delay	10 seconds	
		IP Conflict	Enable	Disable	
			Record	Enable	
			Record Delay	10 seconds	
			Relay out	Enable	
			Relay out Delay	10 seconds	
Storage	Storage	FTP	Enable FTP	Disable	
			Server IP	N/A	
			Port	21	
			Username	anonymous	
			Password	N/A	
			Remote path	share	
			Emergency (Local)	Disable	
	Record Control		Pack Duration	8 minutes	
			Pre-record	5 seconds	
			Disk Full	Overwrite	
			Record Mode	Auto	

Setup	Item			Default Setup	
				DNA1470W Series	DNA1435W Series
			Record Stream	Main Stream	
System	General	Local Host	Device No	Device factory SN	
			Language	English	
			Video Standard	PAL	
		Date and time	Date Format	Y-M-D	
			Time Format	24H	
			Time Zone	GMT+08:00	
			System Time	Sync	
			DST	Disable	
			DST Type	Week	
			Start Time	00:00:00 of the first Sunday of the month	
			End Time	00:00:00 of the second Monday of the month	
			NTP	Disable	
			NTP Server	clock.isc.org	
			Port	37	
			Update Period	10 minutes	
	Auto Maintenance		Auto Reboot	Enable	
			Auto Delete Old Files	Disable	

2 Structure

2.1 Multiple-function Combination Cable

You can refer to the following figure for multiple-function combination cable information. See Figure 2-1.

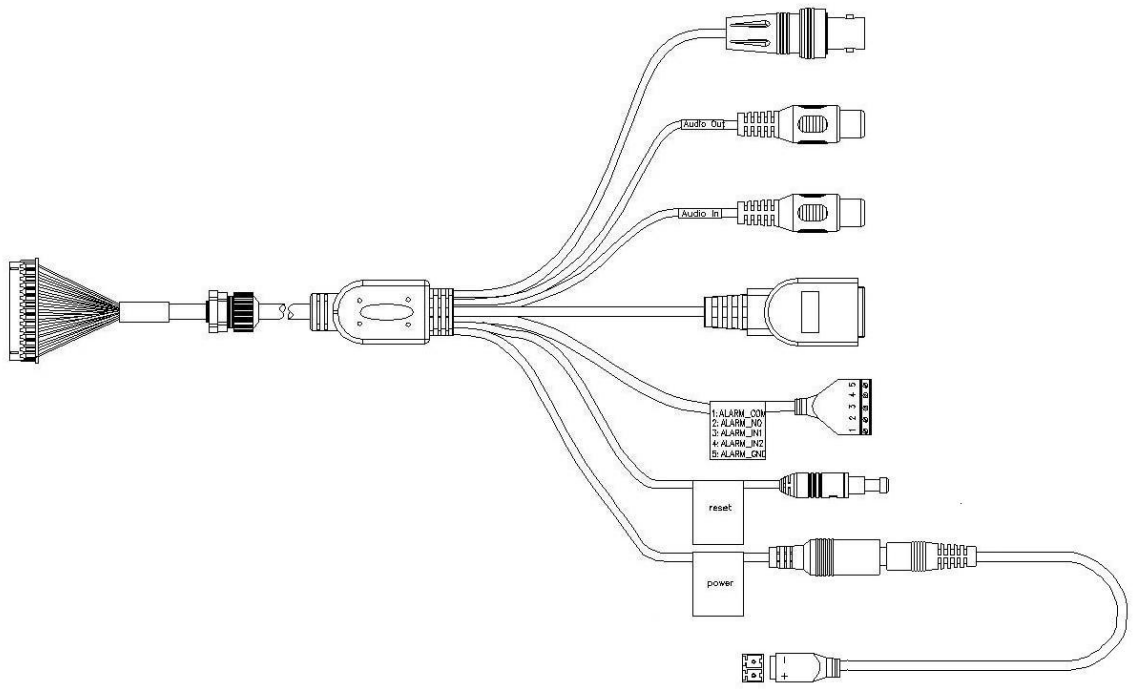


Figure 2-1

Please refer to the following sheet for detailed information.

Port Name	Function	Connection	Note
VIDEO OUT	Video output port	BNC	Output analog video signal. It can connect to the TV monitor to view the video.
AUDIO IN	Audio input port	RCA	Input audio signal. It can receive the analog audio signal from the pickup.
AUDIO OUT	Audio output port	RCA	Output audio signal to the devices such as the sound box.
LAN	Network port	Ethernet port	• Connect to standard Ethernet cable. • Support PoE.
I/O	I/O cable port	/	Includes alarm input and output.
RESET	Reset button	/	The reset button is to restore device factory default setup.

Port Name	Function	Connection	Note
POWER	Power input port	/	Power port. Input DC 12V or AC 24V. **Please note：** ● **Connect the DC5.5 round port to 2-pin converter cable（Provided） when you are using AC 24V series product.** ● **The DC5.5 round port to 2-pin converter cable is not included in the accessories bag if you are using DC 12V series product.**

Please refer to the follow sheet for detailed pin information

Port Name	SN	Name	Note
I/O Port	1	ALARM_COM	Alarm output public port.
	2	ALARM_NO	Alarm output port. It is to output the alarm signal to the alarm device. NO: normal open alarm output port.
	3	ALARM_IN1	Alarm input port 1. It is to receive the on-off signal from the external alarm source.
	4	ALARM_IN2	Alarm input port 2. It is to receive the on-off signal from the external alarm source.
	5	GND	Ground port

2.2 Framework and Dimension

Please refer to the following two figures for dimension information. The unit is mm. See Figure 2-2 and Figure 2-3.

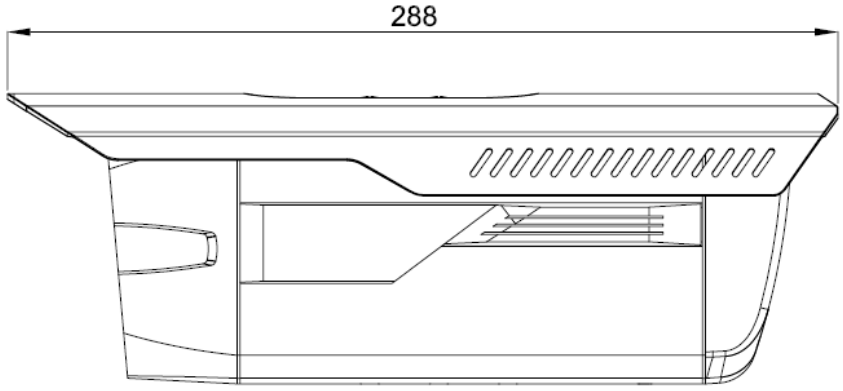


Figure 2-2

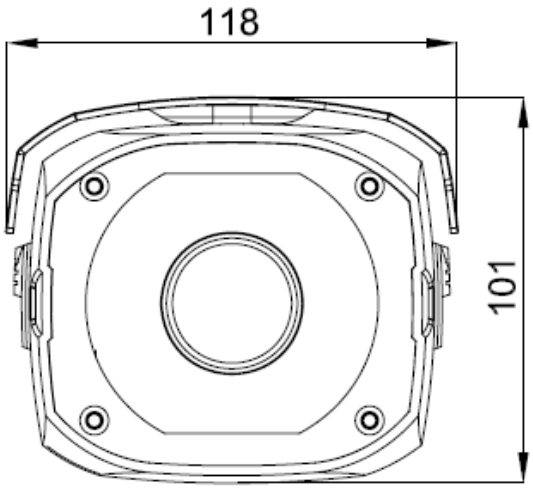


Figure 2-3

2.3 Bidirectional talk

2.3.1 Device-end to PC-end

Device Connection

Please connect the speaker or the pickup to the first audio input port in the device rear panel. Then connect the earphone or the sound box to the audio output port in the PC.

Login the Web and then enable the corresponding channel real-time monitor.

Listening Operation

At the device end, speak via the speaker or the pickup, and then you can get the audio from the earphone or sound box at the pc-end.

2.3.2 PC-end to the device-end

Device Connection

Connect the speaker or the pickup to the audio output port in the PC and then connect the earphone or the sound box to the first audio input port in the device rear panel.

Login the Web and then enable the corresponding channel real-time monitor.

Listening Operation

At the PC-end, speak via the speaker or the pickup, and then you can get the audio from the earphone or sound box at the device-end.

2.4 Alarm Setup

The alarm interface is shown as in Figure 2-4. Please follow the steps listed below for local alarm input and output connection.

1) Connect the alarm input device to the alarm input port (No.3 pin or No.4 pin) of the I/O cable.

2) Connect the alarm output device to the alarm output port (No.2 pin) and alarm output public port (No.1 pin). The alarm output port supports NO (normal open) alarm device only.

3) Open the Web, go to the Figure 2-4. Please set the alarm input 01 port for the first channel of the I/O cable (No.3 pin). The alarm input 02 is for the 2nd channel of I/O cable (No.4 pin). Then you can select the corresponding type (NO/NC.)

4) Set the WEB alarm output. The alarm output 01 is for the alarm output port of the device. It is the No.2 pin of the I/O cable.

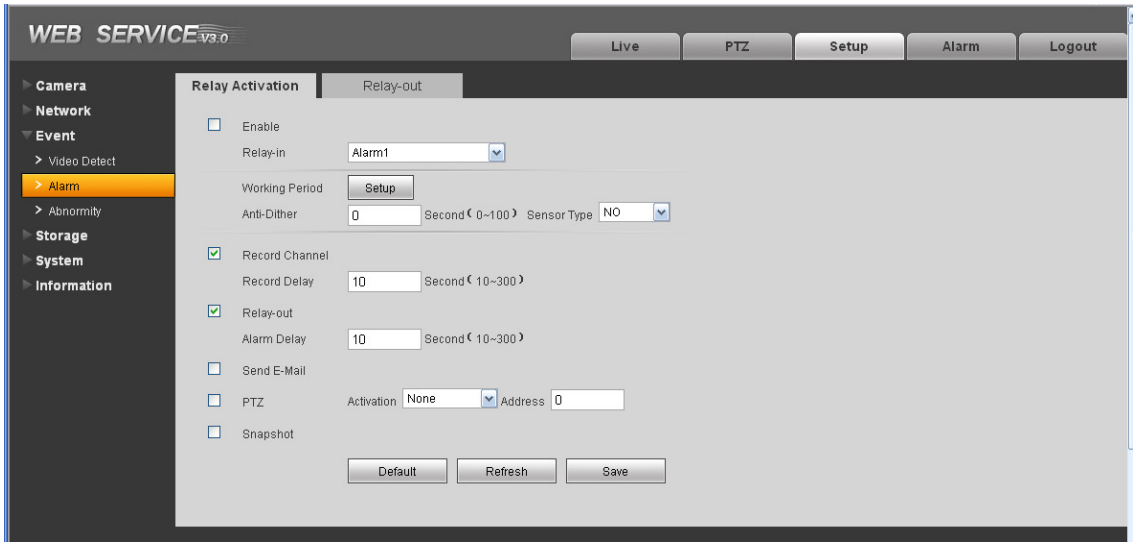


Figure 2-4

Please refer to the following figure for alarm input information. See Figure 2-5.
Alarm input: When the input signal is idle or grounded, the device can collect the different statuses of the alarm input port. When the input signal is connected to the 5V or is idle, the device collects the logic “1”. When the input signal is grounded, the device collects the logic “0”.

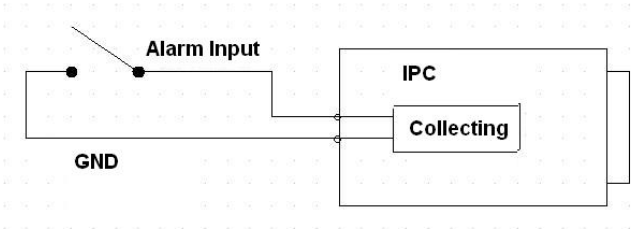


Figure 2-5

Please refer to the following figure for alarm output information. See Figure 2-6.
Port NO and Port C composes an on-off button to provide the alarm output.
If the type is NO, this button is normal open. The button becomes on when there is an alarm output.
If the type is NC, this button is normal off. The button becomes off when there is an alarm output.

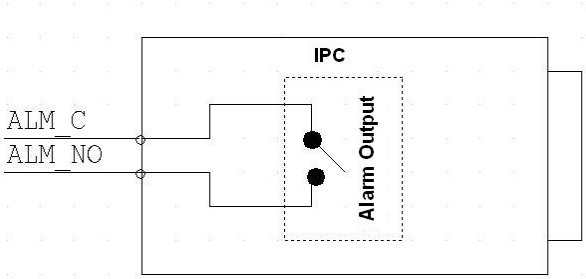


Figure 2-6

3 Device Installation

Please follow the steps listed below to install the device. Please refer to Figure 3-1 for reference.

- Please line up the installation holes of the bottom of the device to the installation holes in the front part of the bracket. Then insert the screws to the holes to fasten the device on the bracket.
- Dig four holes in the wall or the surface, and then input the expansion bolts to the holes and secure.
- Put the four fixed holes of the bottom of the bracket to the four holes you just dug in the wall or surface. Put the four fixed screws to the four holes of the bracket and then secure firmly. Finally you can fix the bracket in the wall or surface.

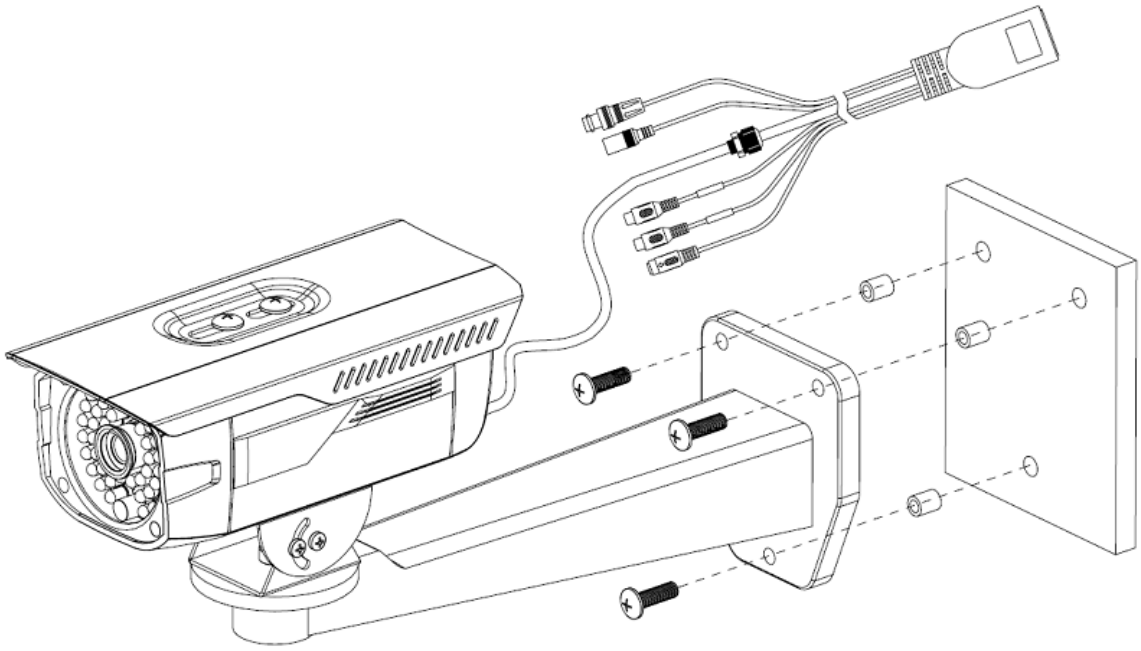
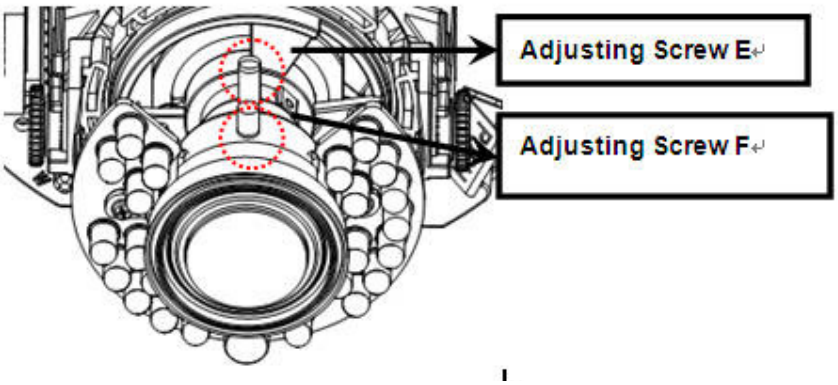


Figure 3-1

FOR VARI-FOCAL LENS ADJUSTMENT OPEN HOUSING AND FOLLOW INSTRUCTIONS

When you are securing the adjusting screw F, you can see the video may become blur. Please push the adjusting screw E to adjust the video slightly. Please secure the adjust screw E if you get a clear video.



4 Quick Configuration Tool

4.1 Overview

Quick configuration tool can search current IP address, modify IP address. At the same time, you can use it to upgrade the device.

Please note the tool only applies to the IP addresses in the same segment.

4.2 Operation

Double click the “ConfigTools.exe” icon, you can see an interface is shown as in Figure 4-1.

In the device list interface, you can view device IP address, port number, subnet mask, default gateway, MAC address and etc.

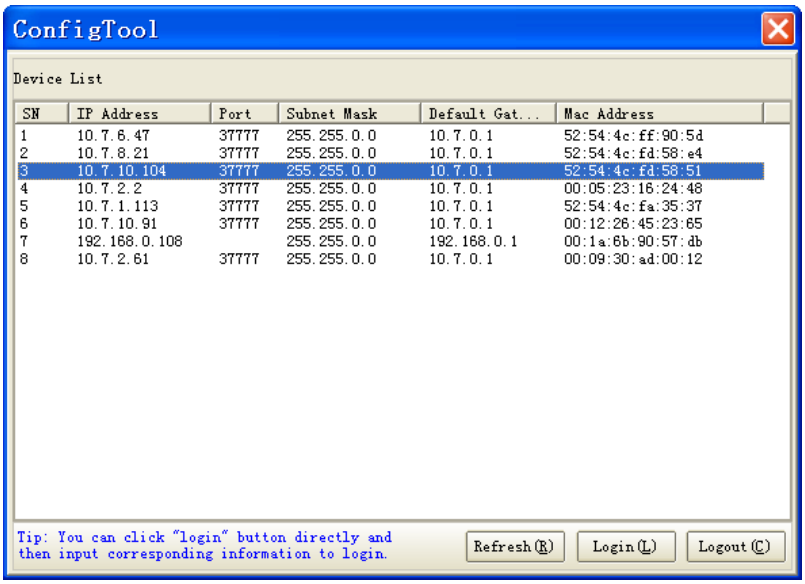


Figure 4-1

Select one IP address and then right click mouse, you can see an interface is shown as in Figure 4-2.

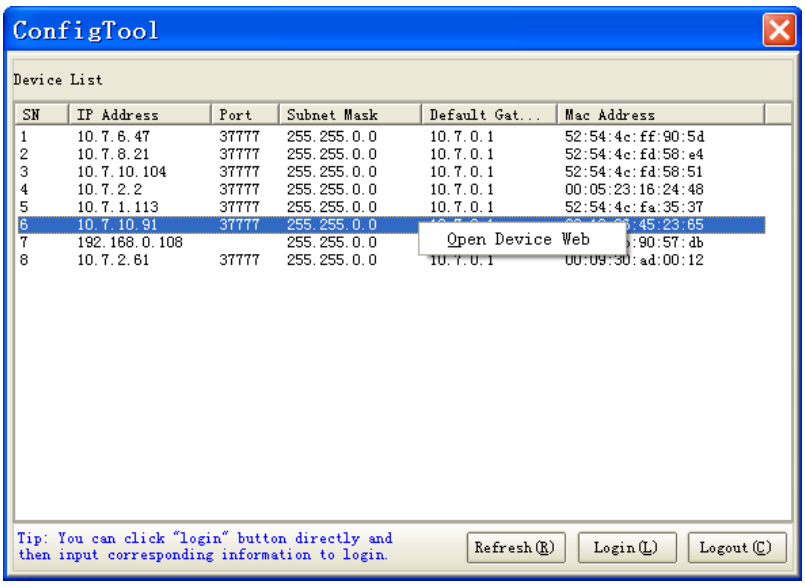


Figure 4-2

Select the “Open Device Web” item; you can go to the corresponding web login interface. See Figure 4-3.

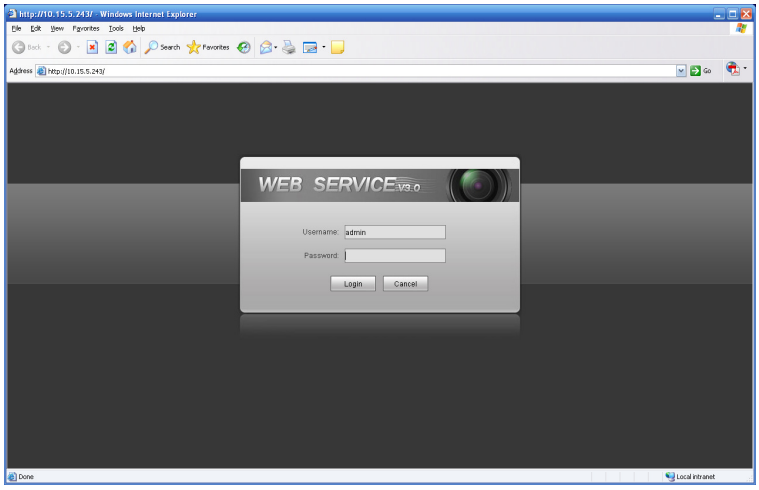


Figure 4-3

If you want to modify the device IP address without logging in the device web interface, you can go to the configuration tool main interface to set.

In the configuration tool search interface (Figure 4-1), please select a device IP address and then double click it to open the login interface. Or you can select an IP address and then click the Login button to go to the login interface. See Figure 4-4.

In Figure 4-4, you can view device IP address, user name, password and port. Please modify the corresponding information to login.

Please note the port information here shall be identical with the port value you set in TCP port in Web Network interface. Otherwise, you can not login the device.

If you are use device background upgrade port 3800 to login, other setups are all invalid.

Figure 4-4

After you logged in, the configuration tool main interface is shown as below. See Figure 4-5.

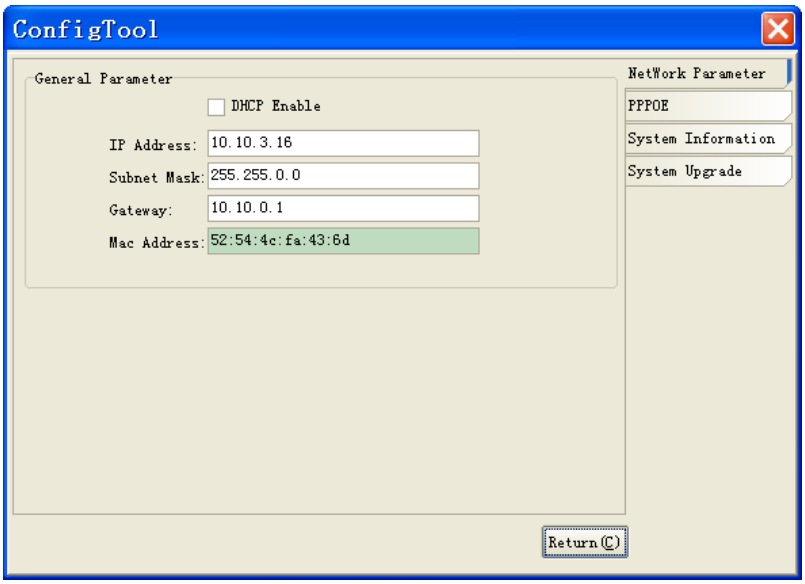

ConfigTool
General Parameter
DHCP Enable
IP Address:
10.10.3.16
Subnet Mask:
255.255.0.0
Gateway:
10.10.0.1
Mac Address:
52:54:4c:fa:43:6d
NetWork Parameter
PPPOE
System Information
System Upgrade
Return(C)

Figure 4-5

5 Web Operation

This series IPC product support the Web access and management via PC.
Web includes several modules: monitor channel preview, system configuration, alarm and etc.

5.1 Network Connection

Please follow the steps listed below for network connection.

- Make sure the IPC has connected to the network properly.
- Please set the IP address, subnet mask and gateway of the PC and the IPC respectively. IPC default IP address is 192.168.1.108. Subnet mask is 255.255.255.0. Gateway is 192.168.1.1
- Use order ping ***.***.***.***(* IP camera address) to check connection is OK or not.

5.2 Login and Logout

Open IE and input IP camera address in the address bar.
For example, if your camera IP is 192.168.1.108, then please input http:// 192.168.1.108 in IE address bar. See Figure 5-1.

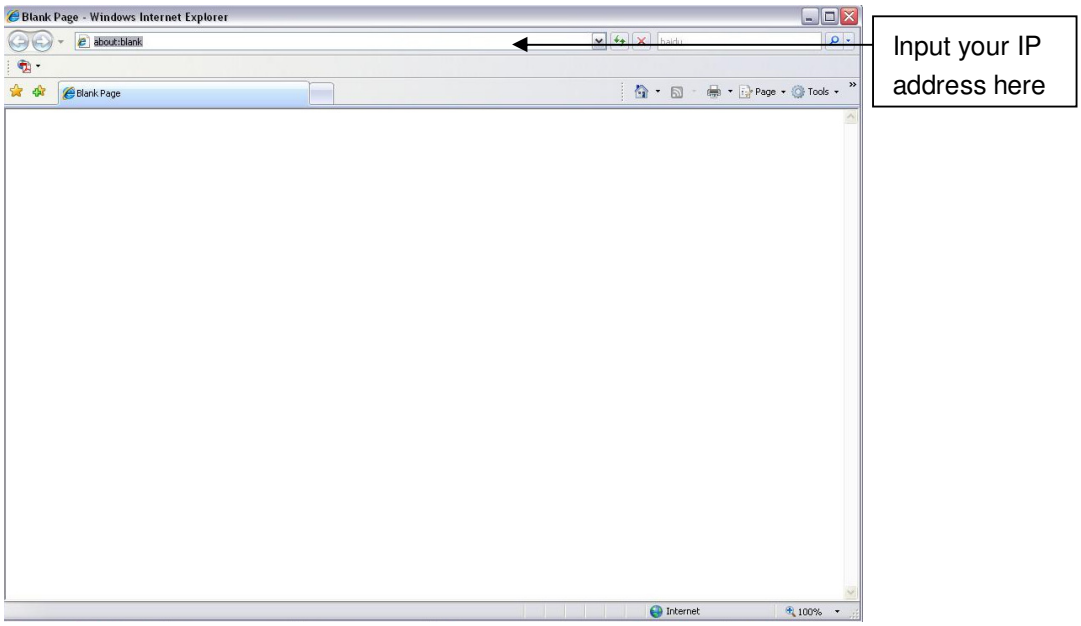


Figure 5-1

The login interface is shown as below. See Figure 5-2.
Please input your user name and password.
Default factory name is admin and password is admin.
Note: For security reasons, please modify your password after you first login.

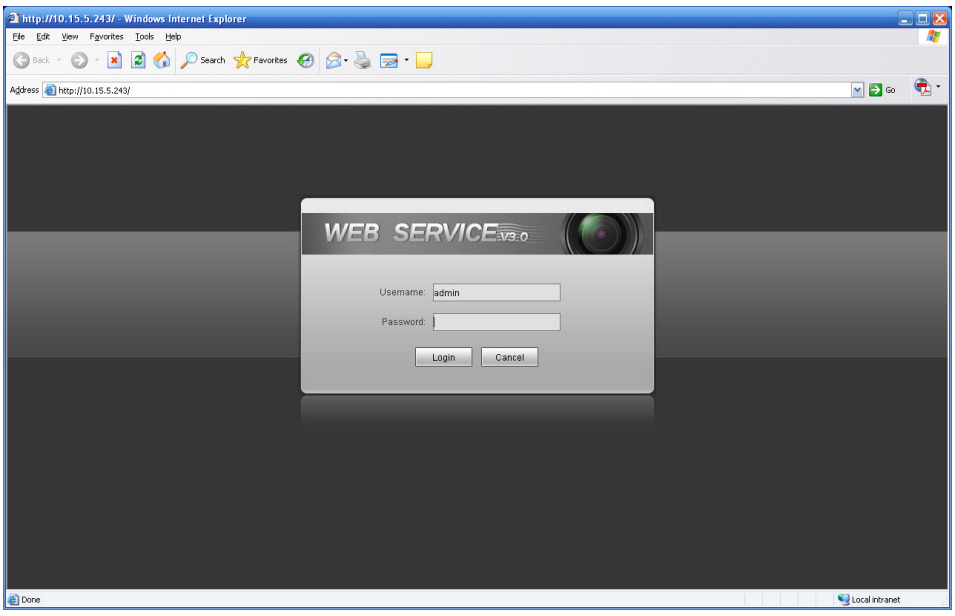


Figure 5-2

If it is your first time to login in, system pops up warning information to ask you whether install control webrec.cab or not after you logged in for one minute. Please click OK button, system can automatically install the control. When system is upgrading, it can overwrite the previous Web too.
If you can't download the ActiveX file, please check whether you have installed the plug-in to disable the control download. Or you can lower the IE security level. See Figure 5-3.

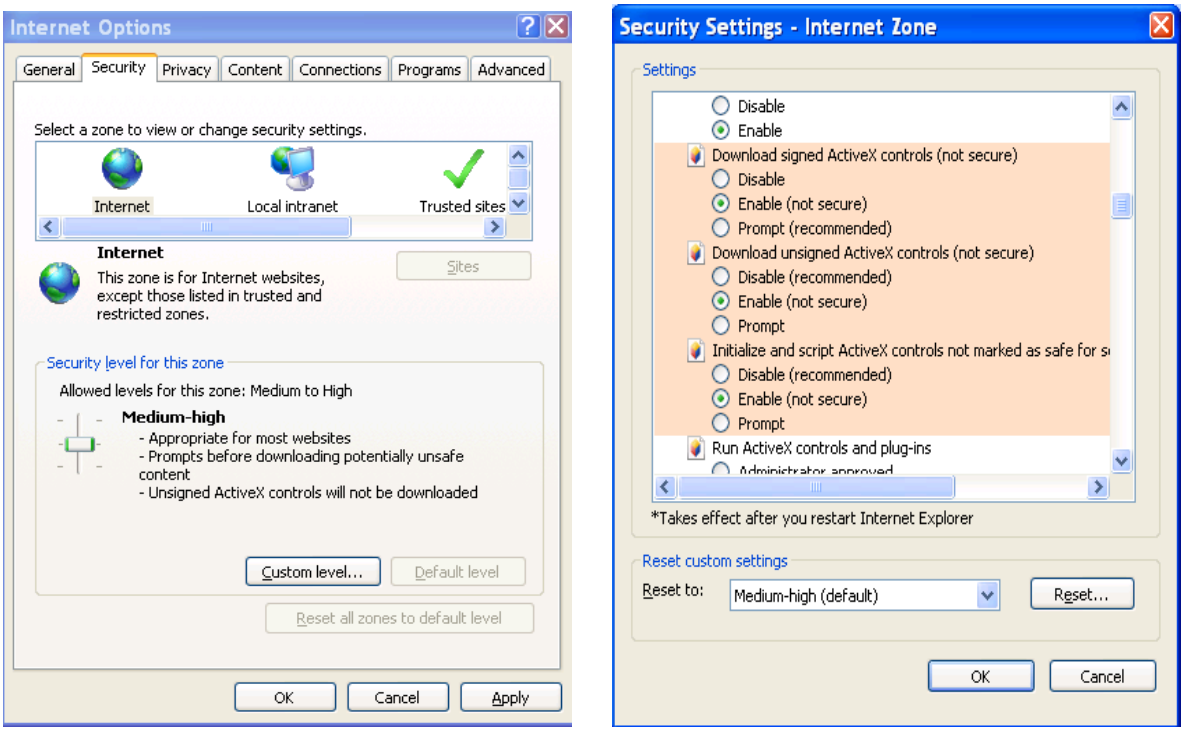


Figure 5-3

After you logged in, you can see the main window. See Figure 5-4.

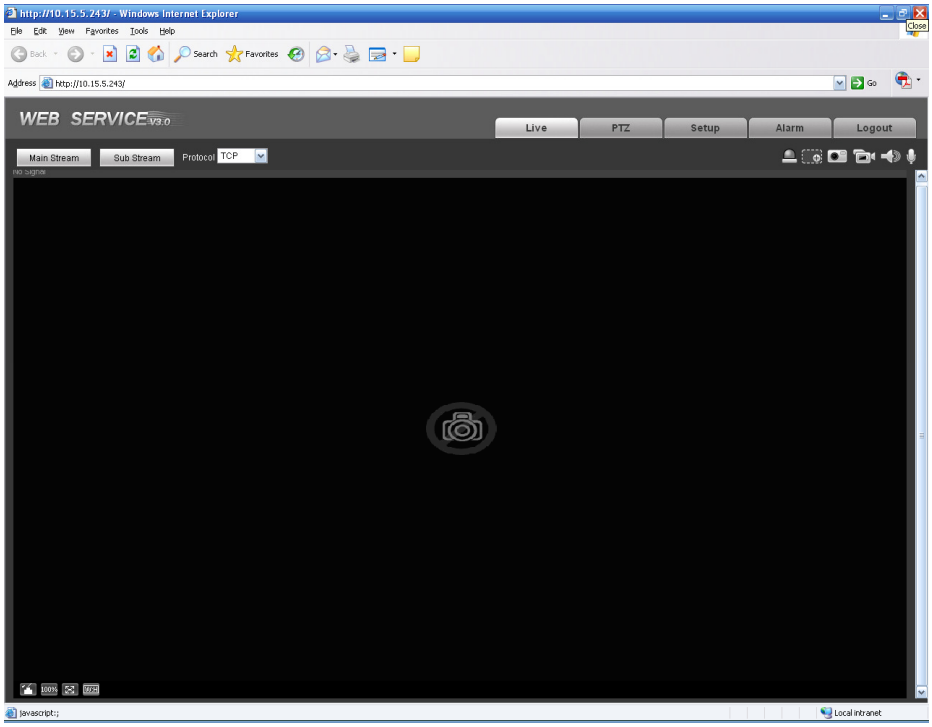


Figure 5-4

Please refer to the Web Operation Manual included in the resource CD for detailed operation instruction.

6 FAQ

Bug	
I can not boot up the device.	Please click RESET button for at least five seconds to restore factory default setup.
SD card write times	Do not set the SD card as the storage media to storage the schedule record file. It may damage the SD card duration.
I can not use the disk as the storage media.	When disk information is shown as hibernation or capacity is 0, please format it first (Via Web).
I can not upgrade the device via network.	When network upgrade operation failed, you can use port 3800 to continue upgrade.
Recommended SD card brand	Kingston 4GB, Kingston 1GB, Kingston 16GB, Transcend 16GB, SanDisk 1G, SanDisk 4G Usually we recommend the 4GB (or higher) high speed card in case the slow speed results in data loss.
Audio function	Please use active device for the audio monitor input, otherwise there is no audio in the client-end.
To guarantee setup update	After you modified the important setup, please reboot the device via the software to make sure the setup has been updated to the storage medium.
Power adapter	The power adapter included in the accessories bag can work ranging from 0℃ to 40 ℃. The device may result in unstable power supply when the temperature exceeds the working temperature. Please replace an industry-level power adapter if you are using in the harsh environments.

Appendix Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Circuit Board Component	○	○	○	○	○	○
Device Construction Material	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
Packing Components	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes。

Note

- **This user's manual is for reference only. Slight difference may be found in user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **If there is any uncertainty or controversy, please refer to the final explanation of us.**
- **Please visit our website for more information.**